REMARKS/ARGUMENTS

Amendments to the Claims

Basis for the flexural modulus limitation in currently amended Claim 1 can be found in the specification on page 12 in Table 1, Example 2. No new matter is added.

Currently amended Claim 2 is amended as per the Examiner's suggestion. No new matter is added.

Claim Rejections

The Examiner has rejected Claims 1 to 8 under 35 U.S.C. 102(b) as being anticipated by Ramanathan et al. (US 2003/0069362). Ramanathan discloses a blow molded automotive article comprising a toughened (good impact) propylene polymer composition comprising a coupled propylene polymer and optionally one or more of a polyolefin elastomer, a thermoplastic polymer, or a filler. Applicant's present claimed invention is a coupled impact propylene copolymer composition with good stiffness, comprising a coupled impact propylene copolymer, glass fibers and optionally a functionalized olefin polymer wherein the coupled impact propylene copolymer composition has a flexural modulus of at least 5000 mPa. The object of the present invention is to provide a stiff (high modulus) glass-filled impact copolymer propylene composition versus a blow molded article comprising a tough coupled propylene polymer composition as disclosed in Ramanathan.

Ramanathan discloses that the coupled propylene polymer useful in his invention can be produced by coupling a propylene homopolymer, a random propylene copolymer, a block propylene copolymer, or an impact propylene copolymer. Ramanathan further discloses that the polyolefin elastomer suitable for his invention can be selected from natural rubbers, polyolefin elastomers (POE), chlorinated polyethylenes (CPE), silicone rubbers, styrene/butadiene (SB) copolymers, styrene/butadiene/styrene (SBS) terpolymers, styrene/ethylene/butadiene/styrene (SEBS) terpolymers, or hydrogenated SBS or SEBS. Ramanathan further discloses that the thermoplastic polymer suitable for his

invention can be selected from coupled or uncoupled propylene polymers; functionalized polypropylene, such as maleated polypropylene or polypropylene with carboxylic acid moieties; polyethylene, such as high density polyethylene (HDPE), low density polyethylene (LDPE), linear low density polyethylene (LLDPE), ultra low density polyethylenes (ULDPE) and very low density polyethylene (VLDPE); interpolymers of ethylene with a vinyl aromatic, such as styrene; ethylene-vinyl acetate copolymer (EVA), ethylene-ethyl acetate copolymer (EEA), ethylene acrylic acid (EAA), polyethylene graft maleic anhydride (PE-g-MAH), polystyrene; polycyclohexylethane; polyesters, such as polyethylene terephthalate; syndiotatic polypropylene; syndiotactic polystyrene; polyamides; and mixtures thereof. Ramanathan further discloses that the filler suitable for his invention may be selected from mineral fillers such as calcium carbonate, talc, clay, mica, wollastonite, hollow glass beads, titaninum oxide, silica, carbon black, glass fiber or potassium titanate. Preferred fillers are talc, wollastonite, clay, cation exchanging layered silicate material or mixtures thereof.

One skilled in the art would need to make several selections from potentially hundreds, if not thousands of potential combinations in Ramanathan to arrive at Applicant's present invention of a coupled impact propylene copolymer comprising glass fibers and optionally a functionalized olefin polymer. Starting with Ramanathan, one skilled in the art would need to select from the list of suitable propylene polymers, the list of suitable fillers, the list of suitable thermoplastic polymer and choose not to include a polyolefin elastomer, however, there is no motivation to do so. Further, Ramanathan does not teach or suggest Applicant's specific combination of a coupled impact propylene copolymer, glass fibers and optionally a functionalized olefin polymer.

Based on the examples disclosed in Ramanathan, there is no motivation to arrive at Applicant's invention. Ramanathan's examples comprise a coupled propylene impact copolymer alone or with one or more of a propylene homopolymer, propylene copolymer, a polyolefin elastomer, or talc, none of which teach or suggest Applicant's invention of a coupled impact propylene copolymer comprising glass fibers and optionally a functionalized olefin polymer. Further, Ramanathan does not teach or suggest any combination, let alone Applicant's coupled impact propylene copolymer comprising glass fibers and optionally a functionalized olefin polymer,

that may be advantages for a coupled propylene impact copolymer composition with good stiffness. Moreover, Ramanathan's coupled impact propylene copolymer compositions have a flexural modulus between 1090 to 2250 mPa, close to a quarter to half as much as required in the present invention. Applicant asserts that Claims 1 to 8 of the present invention claiming a coupled impact propylene copolymer comprising glass fibers and optionally a functionalized olefin polymer having a flexural modulus greater than 5000 mPa is novel in view of Ramanathan.

The Examiner has rejected Claims 9 and 10 under 35 U.S.C. 102(b) as being anticipated by Ramanathan et al. (US 2003/0069362). Ramanathan discloses a process to blow mold a coupled propylene polymer composition into an automotive article. However, as discussed hereinabove, Ramanathan does not teach or suggest Applicant's specific coupled impact propylene copolymer composition comprising a coupled impact propylene copolymer, glass fibers and optionally a functionalized olefin polymer wherein the coupled impact propylene copolymer composition has a flexural modulus of at least 5000 mPa nor does he teach or suggest blow molding Applicant's specific coupled impact propylene copolymer composition. Applicant asserts that Claims 9 and 10 are novel in view of Ramanathan.

The Examiner has rejected Claims 1 to 3 and 6 to 7 under 35 U.S.C. 103(a) as being unpatentable over Geddes et al. (US 4,997,875) in view of Ansems et al. (US 6,472,473 B1). Geddes discloses a propylene composition comprising an easy flow propylene polymer with a melt flow rate of from 55 to 430 dg/min., a fiber reinforcing agent, and a coupling agent. The problem to be solved by Geddes is to provide a fiber reinforced polypropylene composition having good flow. The object is achieved by using an easy flow polypropylene having a melt flow rate of 55 to 430 dg/min. The Examiner states that Geddes differs from the present invention in that the propylene polymer is not a coupled impact copolymer, such as taught in Ansems. The Examiner states the motivation is that Ansems coupled impact propylene copolymers exhibit high impact strength. However, impact strength is not the object of the propylene polymers in Geddes, it is easy flow. Moreover, the propylene impact copolymers disclosed in Ansems have very low melt flow rates: 15 dg/min. and 8 dg/min. prior to coupling which are outside of the required range in Geddes.

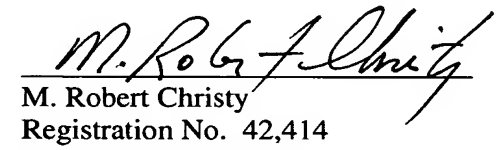
Further, one skilled in the art knows that coupling further significantly reduces the melt flow rate of a propylene copolymer. This is demonstrated in the present

invention (page 8, lines 9 to 21) for PP-1 which has a melt flow rate of 8 dg/min. before coupling and 4 dg/min. after coupling, a 50% decrease in flow and PP-2 has a melt flow rate of 12 dg/min. prior to coupling and a melt flow rate of 5 dg/min. after coupling, a 67% decrease in flow. Geddes requires an easy flow propylene polymer. Ansems discloses low flow coupled impact propylene copolymers. The low flow coupled propylene polymers of Ansems teaches away from the easy flow propylene polymers required in Geddes. There is no motivation for one skilled in the art to combine these two references to arrive at Applicant's present invention of a stiff coupled impact propylene copolymer composition comprising a coupled impact propylene copolymer, glass fibers and optionally a functionalized olefin polymer wherein the coupled impact propylene copolymer composition has a flexural modulus of at least 5000 mPa. Further, Applicant asserts that if one were to combine these references, and Applicant sees no motivation to do so, they could only be combined through hindsight to arrive at the present invention. Applicant believes Claims 1 to 3 and 6 to 7 are unobvious and patentable in view of Geddes and Ansems.

CONCLUSIONS

In view of the preceding amendments and remarks, it is believed that Claims 1 to 10 novel and unobvious in view of the cited art and are patentable in full. Accordingly, their reconsideration and allowance at the earliest possible convenience is courteously solicited.

Respectfully submitted,



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